

**REMARKS**

This Amendment is filed in response to the Office Action mailed on June 16, 2004. All objections and rejections are respectfully traversed.

Claims 1-19, and 21-53 are in the case.

Claim 20 was cancelled without prejudice.

No new claims were added.

No claims were amended.

At paragraphs 2 and 4 of the Office Action claims 34, 51, and 53 were rejected under 35 U.S.C. § 101 on the grounds that data structures set out in these claims are not tangibly embodied.

The present invention, as set out in representative claim 34, comprises in part:

34. Electromagnetic signals propagating on a computer network, comprising:

*said electromagnetic signals carrying instructions for execution on a processor for the practice of the method of,*

providing a tightly-coupling hardware data encryption function with software-based protocol decode processing within a pipeline processor of a programmable processing engine in a network switch;

providing an encryption execution unit within the pipelined processor;  
providing an ALU within the pipelined processor;  
enabling, by an instruction decode stage (ID stage) in response to reading an opcode, the encryption execution unit to read data from a memory shared by the ALU and the pipelined processor, and for the encryption execution unit to process the data read from the memory;  
and  
selecting as output the result of processing by the encryption execution unit rather than selecting results from the ALU.

Applicant respectfully urges that the novel method steps are tangibly embodied in the electromagnetic signals propagating on the computer network. Further, Applicant respectfully urges that the embodiment of electromagnetic signals for transfer of *instructions for execution on a processor for the practice of the method of* between computers fully satisfies all requirements of 35 U.S.C. 101, and all requirements set out in the MPEP.

That is, Applicant respectfully urges that embodiment of the instructions in electromagnetic signals meets all of the requirements of 35 U.S.C. § 101, especially as clarified by MPEP 2106 IV, B, 1(c) at page 2106 of MPEP 8th Edition Incorporating Revision No. 2. (hereinafter MPEP 2106 IV, B, 1(c)). Further, MPEP 2106 IV, B, 1(c) states, at page 2106:

“However, a signal claim directed to a practical application of electromagnetic energy is statutory regardless of its transitory nature, see *O'Reilly* 56 U.S. at 114-19; *In re Breslow*, 616 F. 2d 516, 519-21, 205 USPQ 221, 225-26 (CCPA 1980).”

In the case *In re Breslow* claims were permitted by the Court (CCPA) to chemical species which are transient in nature, and cannot be separated out of the mixture in which they are created. The MPEP cites this patentability of transitory phenomena in chemical reactions in support of the statement by the MPEP, “However, a signal claim directed to a practical application of electromagnetic energy is statutory regardless of its transitory nature”.

The important point for patentability is the practical application of electromagnetic energy. And a practical application of electromagnetic energy is transmission of a computer program over a computer network, where the computer program is for the practice of a novel method. This practical application of electromagnetic energy is patentable subject matter, as explained by MPEP 2106 IV, B, 1(c).

A copy of *In re Breslow* from 205 USPQ 221 is attached to this Amendment, for the convenience of the Examiner.

Applicant respectfully urges that imbedding instructions for execution on a processor in an electromagnetic signal propagating on a computer network meets the practical

application requirements of 35 U.S.C. § 101 and of MPEP 2106 IV, B, 1(c), and that claim 34 therefore claims statutory subject matter. Also, Applicant respectfully urges that claims 51 and 53 claim statutory subject matter under 35 U.S.C. § 101 and MPEP 2106 IV, B, 1(c).

At paragraphs 5-6 of the Office Action Claim 20 was rejected under 35 U.S.C. § 103 (a). Claim 20 has been cancelled without prejudice.

Claims 1-19, 21-33, 35-50, and 52 were allowed.

All independent claims are believed to be in condition for allowance.

All dependent claims are believed to be dependent from allowable independent claims, and therefore in condition for allowance.

Favorable action is respectfully solicited.

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Respectfully submitted,



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